

Could Mindfulness-Based Cognitive Therapy prevent a lifelong recurrent course of depression or anxiety by addressing key mechanisms of vulnerability in adolescents at highest risk?

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Summary

We explore the potential of Mindfulness-Based Cognitive Therapy (MBCT), a skills-based intervention that provides participants with sustainable tools for adaptive responses to stress and negative mood, for the large group of young people with depression or anxiety who only partially or briefly respond to currently available first line interventions.

Depression and anxiety often commence in childhood or adolescence, and run a fluctuating, episodic course; fewer than half the young people who are affected maintain their recovery into early adult life, while many experience repeated recurrences (1). The modification of psychological and biological processes that may underlie the vulnerability to relapse, the amelioration of sub-clinical symptoms that are indicative of such vulnerabilities, and the prevention of future episodes should be a clinical priority. Aside from the immediate need to reduce distress, the attainment and maintenance of recovery in adolescence is likely to limit adverse educational and social outcomes in addition to protecting mental health in adulthood. In this editorial, we explore the potential of Mindfulness-Based Cognitive Therapy (MBCT), a skills-based intervention that provides participants with sustainable tools for adaptive responses to stress and negative mood, for the large sub-group ~~group~~ of young people with depression and anxiety who only partially or briefly respond to currently available first line interventions. Our focus is on young people with emotional disorder attending

specialist mental health services who are either not sufficiently recovered to be discharged despite compliance with an evidence-based intervention or who rapidly relapse. The terms used to describe their psychological difficulties and response to treatment reflect those used in the quoted literature.

Psychological approaches targeting depression in young people also improve symptoms of anxiety and vice versa, and are moderately effective in the short term, but 20-40% fail to respond and beneficial effects are often not maintained (1: 2). There is evidence for the efficacy of Cognitive Behavioural therapy (CBT), but families and practitioners would benefit from more evidence about different types of psychotherapy as well as indicators of which young people are most likely to benefit from them (2). Similar levels of efficacy have been reported for the use of anti-depressant medication in the acute treatment of depression among young people, while the combination of medication with psychological approaches may improve outcomes as well as shorten the episode of depression and reduce the likelihood of relapse (2). These approaches still leave a substantial number of young people with residual difficulties: as many as 40% according to estimates from a recent review (2).

Both treatment non-response and residual symptoms strongly predict subsequent difficulties among young people with depression and anxiety (1:2), so indicate future vulnerability. Targeting residual symptoms may prevent relapse, although current evidence is limited and mostly based on data from young people who initially recovered. The Cochrane review retrieved nine trials, which allowed only limited synthesis; medication reduced the proportion of young people who experienced relapse of depression to 40% from two thirds. Psychological approaches were encouraging but less frequently studied and when included were mostly tested in combination with medication. All five trials that evaluated psychotherapy employed CBT in various forms and the absence of alternative psychotherapeutic approaches other than Systemic Behavioural Family Therapy (one study) is striking. There is an important need for more research on other approaches as the evidence-base for children and young people's mental health remains limited compared to that for adults, and alternatives to CBT have rarely been studied (2).

A large body of evidence demonstrates that maladaptive responses to negative mood, such as rumination or worry, may be key (3). Recent commentaries have reinforced both a general psychopathology factor, best understood as a reflection of the extent of impairment or dysfunction in a person's life, and a bi-factor model, which includes an internalizing psychopathology factor characterized by an increased propensity to respond to stress and negative mood with maladaptive repetitive thinking (3). Such responses are likely to become increasingly automatic and habitual with recurrent exposure to symptoms, and may drive relapse. Interventions that improve the young person's ability to respond adaptively to stress and negative mood may thus be key to fostering recovery and resilience, although there is little research into mechanisms in this age-group (2,3,4). Given a large sub-group who fail to respond to initial treatment (40%), and high rates of relapse (50-75%), it seems sensible to explore interventions that might offer adjunctive treatment to existing combinations of manualised psychotherapy and anti-depressant medication (2).

MBCT is an 8-week group-based programme that combines mindfulness practice with cognitive behavioural elements. It aims to teach people the skills to recognise the early warning signs of relapse and respond in more adaptive ways, and was specifically designed to target engagement in unhelpful, maladaptive patterns of repetitive thinking. There is now a substantial body of evidence for its effectiveness and cost-effectiveness in relapse prevention for depression among adults (3). Indeed, preventative effects of the intervention are increased among patients who are

suffering from residual symptoms and those who experienced childhood maltreatment, an important predictor of poor response to intervention for depression in young people (2). Notably, research has shown that the utilization of core skills learned during MBCT is maintained, and even increased, after the actual intervention, which suggests a lasting potential for buffering responses to negative mood and stress (3).

There is growing interest in the application of mindfulness-based approaches with young people and some tentative evidence to support their use in clinical populations, and theoretically, the mid-to-late teens might be a particularly effective period in development to enhance mindfulness-based skills due to brain plasticity (4). To date only a small number of studies have used randomised controlled designs, but in a recent systematic review and meta-analysis, the most robust studies suggested MBCT may be effective for young people with anxiety and depression (4). To our knowledge, there have been no trials of MBCT restricted to adolescents with residual or relapsed depression or anxiety, but two small evaluations suggest that MBCT was both acceptable and feasible in this context (5). Importantly, both demonstrated symptomatic improvement among young people who had not completely responded to initial interventions or had rapidly relapsed as assessed by the referring mental health practitioner. Although they were presenting only for the first or second time, they were at a life-stage where poor function may radically alter life trajectory and thus at high risk of becoming the adult population for whom MBCT is demonstrably effective (5).

Adaptation of MBCT for young people needs to accommodate the contributing factors specific to adolescence in order to optimise treatment response. Young people's functioning is strongly determined by family contexts, and there is considerable evidence to support the intergenerational transmission of depression (1). Parental anxiety or depression predicts the severity and persistence of emotional disorders among young people (1), while family conflict predicts a poorer response to intervention (2). Hence the clinical consensus that the involvement of parents in the treatment of their child is important. Although parental involvement is widely endorsed and included in most manualised psychotherapies, current service restraints may undermine its use in routine practice (5).

Our pilot MBCT programme for young people who needed continuing support or relapse rapidly having completed a first line psychological intervention for depression or anxiety included a parallel MBCT group for parents (5). The addition of the parallel parents' MBCT group seems to offer a particularly powerful approach in highly vulnerable young people who have not responded fully to previous treatment and for whom intergenerational transmission is more likely to have played a role in their presentation. More than half of the attending parents reported a personal history of depression, while a quarter were taking anti-depressant medication. Parental involvement was strongly endorsed by young people, parents and the referring clinicians. Although primarily designed to support young people's mindfulness practice, which is assumed to be the major vehicle of therapeutic effect, the parent group provided similar content to the young people's group and was experienced as therapeutic. Parents reported that it supported them through the emotional impact of parenting an adolescent with poor mental health and, in line with previous reports of beneficial effects of mindfulness training on interpersonal functioning (5), both young people and parents reported significantly improved family relationships. Parents as well as young people reported statistically significant reductions in rumination and improvements in self-compassion and de-centering, which suggests that this joint intervention may protect or enhance parental mental health (5). Given the inter-related nature of mental health within a family, any benefits might be expected to amplify over time and might extend to other family members, such as siblings and the other parent.

Based on theoretical reasoning and preliminary data, MBCT offers a promising therapeutic option for the sub-group of young people with depression or anxiety who do not fully respond to initial

treatment or who relapse rapidly after initial recovery. Practitioners, children and families in this predicament need an array of evidence-based therapeutic options from which to choose. We suggest that MBCT, particularly if combined with a parallel parent group, could prove to be effective, and should be evaluated further. There is a need for adequately powered randomised controlled trials, with validated measures of potential mediators as well as clinical outcomes to test its potential to counter vulnerabilities that otherwise might easily fuel a life-course of recurrent emotional disorder (1, 2,4,5).

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Conflict of interest

Thorsten Barnhofer is the co-author of a book on Mindfulness-Based Cognitive Therapy (MBCT) and has received fees and honoraria for teaching MBCT workshops. Willem Kuyken is Director of the University of Oxford Mindfulness Centre. He donates all speaker fees to the not-for-profit Oxford Mindfulness Foundation. Jerry Fox has been paid to deliver Mindfulness Based Intervention (MBI) programmes in the workplace and has delivered MBIs to elite performers at his own expense.

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References

1. Costello EJ & Maughan. Annual Research Review: optimal outcomes of child and adolescent mental illness. *Journal of Child Psychology and Psychiatry* 2015; **56**: 324-341.
2. Goodyer IM & Wilkinson PO. Practitioner review: therapeutics of unipolar depression in adolescents. *Journal of Child Psychology and Psychiatry* 2019; **3**: 232-243.
3. Schweizer S, Segal Z, Speckens A, Teasdale JD, Van Heeringen K, Williams M, Byford S, Byng R & Dalgleish T. Efficacy of Mindfulness-Based Cognitive Therapy in Prevention of Depressive Relapse: An Individual Patient Data Meta-analysis From Randomized Trials. *JAMA Psychiatry* 2016; **73**: 565-74.
4. Dunning D, Griffiths K, Kuyken W, Crane C, Foulkes L, Parker J & Dalgliesh T. (2019). Research Review: The effects of mindfulness-based interventions on cognition and mental health in children and adolescents – a meta-analysis of randomized controlled trials. *Journal of Child Psychology and Psychiatry* 60, 244-258. doi.org/10.1111/jcpp.12980
5. Racey D, Fox J, Berry V, Blockley K, Longridge R, Simmons J, Kuyken W & Ford T. The role of mindfulness based cognitive behaviour therapy in the prevention of recurrent depression among young people and their carers: A mixed-methods feasibility study. *Mindfulness* 2017. doi.org/10.1007/s12671-017-0842-7